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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,475	01/11/2001	Timothy D. Evans	PQC-199US	5504

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EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 12/13/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/700,475

Applicant(s) EVANS ET AL.

Examiner

Steve Alvo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-29-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over SIMINOSKI et al or ROBITAILLE.

The composition of SIMINOSKI et al or ROBITAILLE is the same as that claimed. The term "for use in" does not have probative weight in a product claim. Any difference in percentages would have been an obvious as it is well known to optimize the brightening of pulp by varying the ratios of the composition depending upon the type of pulp being brightened.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-20 and 26 are rejected under 35 U.S.C. 103(a) as obvious over ROBITAILLE in view of Australian Patent 567,787 or SINGH (The Bleaching of Pulp) with or without the ADMITTED PRIOR ART, Specification, page 1, line 23 to page 2, line 13 and page 7, lines 30-35).

ROBITAILLE teaches everything except does indicate the amount of lignin in the pulp, e.g. does not indicate whether mechanical (greater than 20% lignin) or chemical (less than 5%

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lignin). Australian Patent 567,787 teaches peroxide bleaching with magnesium and silicate in a similar manner as ROBITAILLE and teaches that the bleaching liquor could be used to bleach chemical pulp. It would have been obvious to one of ordinary skill in the art to use the bleaching and brightening composition of ROBITAILLE to bleach chemical pulp as such is taught by Australian Patent 567,787. Or SINGH teaches that Kraft pulp can be bleached CEDPD bleach sequence. It would have been obvious that the pulp of ROBITAILLE is Kraft chemical pulp as it is being bleached in a conventional sequence that is used to bleach chemical pulp, e.g. not mechanical pulp. If necessary it would have been obvious that the peroxide sequence of ROBITAILLE is being used to bleach chemical pulp as the ADMITTED PRIOR ART teaches that chlorine dioxide darkens pulp (page 2, lines 10-13) and thus the sequence of ROBITAILLE would not be appropriate to bleach mechanical pulp. If necessary the ADMITTED PRIOR ART teaches that chemical pulp has a lignin content of less than 5%. Obviously the chemical pulp of ROBITAILLE and/or Australian Patent 567,787 and/or SINGH would contain less than 5% lignin. Claim 18 is rejected as ROBITAILLE teaches that the peroxide stage could be the final bleach stage, see page 168, column 3. As taught by the ADMITTED PRIOR ART the pulp before the last bleaching (brightening) stage has a lignin content of 1-2%. Obviously the lignin content before the final peroxide stage of ROBITAILLE would contain 1-2% as taught by the ADMITTED PRIOR ART.

Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over ROBITAILLE in view of Australian Patent 567,787 or SINGH with or with the ADMITTED PRIOR ART as applied to claim 8 above, and further in view of TIBBLING et al.

TIBBLING et al teaches increases the peroxide bleaching of chemical pulp by conducting the peroxide bleaching under oxygen gas pressure. It would have been obvious to increase the peroxide bleaching of ROBITAILLE by adding oxygen under pressure as such is taught by TIBBLING et al.

The arguments that SIMINOSKI et al and ROBITAILLE do not claim the newly claimed ratio of Mg:SiO₂ is not convincing as Applicant's claims do not define over the ratios of SIMINOSKI et al and ROBITAILLE. The claims, nor the instant specification, define the MG and SiO₂ components as narrowly as argued by Applicant. The specification, e.g. Table 1, expresses the weight of Mg and silicate as the compound and not the element. See Table 1 for weight of MgSO₄· 7H₂O and 41 Bé silicate solution, see page 11, line 22. These are the same compounds used by SIMINOSKI et al in the same ratios.

Claims 1-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over FRANCIS (cited by Applicant).

See Tables 2, 3, 7 and 5. Compare instant Table 1 to Table 3 of FRANCIS et al, the compounds and percentages used are the same as those used by Applicant. The pulp of FRANCIS et al (Kraft) does not differ from the instant pulp and thus would contain the same amount of lignin as the instant pulp. See page 1, paragraph 1 and TABLE 5 for using a peroxide stage pressurized with oxygen. Any difference would have been an obvious variance of the product and process of FRANCIS et al.

Claims 9-25 are rejected under 35 U.S.C. 103(a) as obvious over FRANCIS et al with or without the ADMITTED PRIOR ART, specification, page 1, line 23 to page 2, line 13 and page 7, lines 30-35).

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FRANCIS et al teaches treating Kraft pulp having a kappa number of peroxide bleaching Kraft pulp. Such chemical pulp is well known to contain small amounts of lignin as the Kraft process dissolves out the lignin from the lignocellulosic pulp to produce a cellulose rich pulp. It would have been obvious to the artisan that the Kraft pulp of FRANCIS et al would contain less than 18% lignin. If necessary the ADMITTED PRIOR ART teaches that Kraft pulp has a lignin content of less than 5%. Obviously the chemical pulp of FRANCIS et al would contain less than 5% lignin. Claim 18 is rejected as FRANCIS et al teaches that the peroxide stage is the final bleach stage of a TCF bleaching process; see Table 5. As taught by the ADMITTED PRIOR ART the pulp before the last bleaching (brightening) stage has a lignin content of 1-2%. Obviously the lignin content before the final peroxide stage of FRANCIS et al would contain 1-2% as taught by the ADMITTED PRIOR ART. See page 1, paragraph 1 and TABLE 5 for using a peroxide stage pressurized with oxygen.

Clarification is still needed with respect to the FRANCIS publication. In the September 9/20/2002 Declaration it is stated: "The first known publication of the subject matter report...was January 1998". In the October 29, 2002 Response, on page 2, paragraph 2; it is stated: "the date of distribution related to the subject interim report occurred after the filing date of the present Application". The present Application was filed 1-11-2001. The report was published January 1998, prior to the filing date of the Application. Is the January 1998 publication the Interim Report or some other document? Who was/were the author/authors of the January 1998 publication?

The argument that SIMINOSKI et al teaches bleaching mechanical pulp is not convincing as claims 1-8 are not limited to chemical pulp. The composition of SIMINOSKI et al or

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ROBITAILLE is the same as that claimed. The term “for use in” does not have probative weight in a product claim. Any difference in percentages would have been an obvious as it is well known to optimize the brightening of pulp by varying the ratios of the composition depending upon the type of pulp being brightened.

Similarly claims 9-20 claim certain steps that cannot be given weight in the product claims. For example, the steps of adding magnesium in an amount to achieve certain ratios of Mg:SiO₂ are method limitations. The only components claimed are: (1) pulp containing less than 18% lignin, e.g. chemical pulp; (2) aqueous sodium silicate (3) alkali agent and (4) a magnesium compound. These components would have been obvious for the reasons set forth above.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “wherein at least 25% of the silicates” is indefinite as it is not clear which silicates are being referred to. Is it the “sodium silicate” or the “Mg:SiO₂”. Clarification is required.

Claim 21 would be given **favorable consideration** if (1) limited to “chemical pulp”; (2) limited to “mass ratio of between 1:10 to about 1:3”; and (3) if the 35 USC 112 rejection is overcome.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on 703-308-1164.

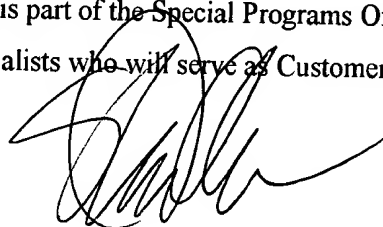
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **703-308-0661**.

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STEVE ALVO
PRIMARY EXAMINER
ART UNIT 1731

MSA
12/12/02